

1. A statistical analysis system for use with a communication facility including remote terminal apparatus for individual callers, wherein said remote terminal apparatus may comprise a conventional telephone instrument including voice communication means, and digital input means in the form of an array of alphabetic numeric buttons for providing identification and statistical data, said control system comprising:

interface means coupled to said communication facility to interface said terminal apparatus for voice and digital communication and including means to provide signal values from data developed by said terminal apparatus said interface means further including a consumable key test means to qualify callers with respect to limited use;

voice generator means coupled through said interface means for actuating said terminal apparatus as to provide vocal operating instructions to an individual caller; and

means connected to said interface means for processing said statistical data as to isolate a subset of said individual callers.

2. A statistical analysis system for use with a communication facility including terminal apparatus for individual callers, wherein said terminal apparatus may comprise a conventional telephone instrument including voice communication means and digital input means in the form of an array of alphabetic numeric buttons for providing identification and statistical data, said control system comprising:

interface means coupled to said communication facility to interface said terminal apparatus for voice

11 and digital communication and including means to  
12 provide signals representative of identification and  
13 statistical data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 record means connected to said interface  
19 means for initiating a file and storing data relating  
20 to specific of said callers;

21 means coupled to said interface means and  
22 said record means for assigning individual designations  
23 to callers and storing said designations in said record  
24 means, said designations including representations  
25 indicative of the calling order sequence of said  
26 individual callers; and

27 means connected to said record means for  
28 processing statistical data as to identify a subset of  
29 said individual callers.

1 3. A statistical analysis system for use  
2 with a communication facility including terminal  
3 apparatus for individual callers, wherein said terminal  
4 apparatus may comprise a conventional telephone  
5 instrument including voice communication means, and  
6 digital input means in the form of an array of alpha-  
7 betic numeric buttons for providing identification and  
8 statistical data, said control system comprising:

9 interface means coupled to said communication  
10 facility to interface said terminal apparatus for voice  
11 and digital communication and including means to  
12 provide signals representative of identification and  
13 statistical data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus

09364731-073099

16 as to provide vocal operating instructions to an  
17 individual caller; and

18 manual terminal means for use by a person to  
19 communicate directly with at least one of said indi-  
20 vidual callers, said manual terminal means being  
21 coupled to said interface means and responsive to  
22 predetermined conditions to couple said manual terminal  
23 means to a caller terminal.

1 4. A system according to claim 3 further  
2 including means connected to said interface means for  
3 processing said statistical data as to isolate a subset  
4 of said individual callers and thereby actuate said  
5 manual terminal means.

1 5. A statistical analysis system for use  
2 with a communication facility including terminal  
3 apparatus for individual callers, wherein said terminal  
4 apparatus may comprise a conventional telephone  
5 instrument including voice communication means, and  
6 digital input means in the form of an array of alpha-  
7 betic numeric buttons for providing identification and  
8 statistical data, said control system comprising:

9 interface means coupled to said communication  
10 facility to interface said terminal apparatus for voice  
11 and digital communication and including means to  
12 provide signals representative of identification and  
13 statistical data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 record means connected to said interface  
19 means for initiating a file and storing identification

00364731 03099

20 data and statistical data for specific callers inclu-  
21 ding data developed by said terminal apparatus;  
22 means coupled to said interface means and  
23 said record means for assigning individual designations  
24 to callers and storing said designations in said record  
25 means; and  
26 means for recalling data stored in said  
27 record means in response to said individual designa-  
28 tions.

1 6. a statistical analysis system for use  
2 with a communication facility including terminal  
3 apparatus for individual callers, wherein said terminal  
4 apparatus may comprise a conventional telephone  
5 instrument including voice communication means, and  
6 digital input means in the form of an array of alpha-  
7 betic numeric buttons for providing identification and  
8 statistical data, said control system comprising:  
9 interface means coupled to said communication  
10 facility to interface said terminal apparatus for voice  
11 and digital communication and including means to  
12 provide signals representative of identification and  
13 statistical data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;  
18 record means connected to said interface  
19 means for initiating a file and storing identification  
20 data and statistical data for specific callers inclu-  
21 ding data developed by said terminal apparatus;  
22 means coupled to said interface means and  
23 said record means for assigning individual designations  
24 to callers and storing said designations in said record  
25 means, said designations including representations of

26 the telephone number of the terminal apparatus used by  
27 a caller; and  
28 means connected to said record means for  
29 processing statistical data as to identify a subset of  
30 said individual callers.

1 7. A statistical analysis system for use  
2 with a communication facility including terminal  
3 apparatus for individual callers, wherein said terminal  
4 apparatus may comprise a conventional telephone  
5 instrument including voice communication means, and  
6 digital input means in the form of an array of alpha-  
7 betic numeric buttons for providing identification and  
8 statistical data, said control system comprising:  
9 interface means coupled to said communication  
10 facility to interface said terminal apparatus for voice  
11 and digital communication and including means to  
12 provide signals representative of identification and  
13 statistical data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;  
18 record means connected to said interface  
19 means for initiating a file and storing identification  
20 data and statistical data for specific callers inclu-  
21 ding data developed by said terminal apparatus; and  
22 means coupled to said interface means and  
23 said record means for assigning individual designations  
24 to callers and storing said designations in said record  
25 means, said designations including an encrypted  
26 representation of said data developed by said terminal  
27 apparatus.

09364731-073099  
660E20 TSC49550

1           8. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data and wherein said facility may  
9 provide calling terminal digital signals to a called  
10 station representative of a remote calling terminal,  
11 said control system comprising:

12           interface structure coupled to said commu-  
13 nication facility to interface said terminal apparatus  
14 for voice and digital communication and including means  
15 to provide signal values from signals representative of  
16 data developed by said terminal apparatus;

17           voice generator means coupled through said  
18 interface means for actuating said terminal apparatus  
19 as to provide vocal operating instructions to an  
20 individual caller;

21           analysis means connected for processing data  
22 from a plurality of callers in combination to isolate a  
23 select subset of said callers by interrelated proces-  
24 sing; and

25           call data analyzer structure for modifying  
26 said data from a plurality of callers under control of  
27 said terminal digital signals.

1           9. A control system according to claim 8  
2 further including record means connected to said  
3 interface means for initiating a file and storing said  
4 terminal digital signals as identification at least in  
5 part for a caller.

09364734-07099  
660E20-15249560

10. A control system according to claim 8 further including switch means whereby passage of said data from a plurality of callers to said analysis means is controlled by said terminal digital signals.

11. A statistical analysis system for use with a communication facility including remote terminal apparatus for individual callers, wherein said remote terminal apparatus may comprise a conventional telephone instrument including voice communication means and digital input means in the form of an array of alphabetic numeric buttons for providing identification and statistical data and wherein said facility may provide called terminal digital signals to a called station representative of the called station, said control system comprising:

interface means coupled to said communication facility to interface said terminal apparatus for voice and digital communication and including means to provide signal values from signals representative of data developed by said terminal apparatus;

voice generator means coupled through said interface means for actuating said terminal apparatus as to provide vocal operating instructions to an individual caller;

analysis means connected to said record means for processing said statistical data from a plurality of callers in combination and in accordance with a plurality of distinct formats to isolate a select subset of said callers by interrelated processing; and

means for actuating one of said distinct formats in accordance with said called terminal digital signals.

09364731-073099

1 12. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:  
9 coupling structure including a plurality of  
10 interface units each capable of accommodating a  
11 plurality of communication paths coupled to said  
12 communication facility to interface said terminal  
13 apparatus for voice and digital communication and  
14 including means to provide signal values from signals  
15 representative of data developed by said terminal  
16 apparatus;

17 voice generator means in said interface means  
18 coupled for actuating said terminal apparatus as to  
19 provide vocal operating instructions to an individual  
20 caller;

21 record means connected to said interface  
22 means for initiating a file and storing identification  
23 data and statistical digital data for specific callers  
24 including data developed by said terminal apparatus;  
25 and

26 analysis means connected to said record means  
27 for processing said statistical data from a plurality  
28 of callers in combination to isolate a select subset of  
29 said callers by interrelated processing.

1 13. A system according to claim 12 further  
2 including means for queuing said remote stations to  
3 said coupling means whereas to sequence interface  
4 communications.

09364731-073000



1 14. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:

9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 analysis means connected for processing data  
19 from a plurality of callers in combination to isolate a  
20 select subset of said callers by interrelated process-  
21 ing; and

22 qualification means for qualifying access  
23 from said remote terminal apparatus to said analysis  
24 means.

1 15. A system according to claim 14 wherein  
2 said qualification means comprises means for limiting  
3 access from a remote terminal to said analysis means on  
4 the basis of accesses per interval of time.

1 16. A system according to claim 14 wherein  
2 said qualification means comprises means for limiting  
3 access from a remote terminal to said analysis means  
4 under control of said signals representative of data  
5 developed by said terminal apparatus.

0364731 0749560

1 17. A system according to claim 16 wherein  
2 said qualification means includes a look-up table.

1 18. A system according to claim 16 wherein  
2 said qualification means includes a use-rate  
3 calculator.

1 19. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:  
9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller; and  
18 analysis means connected for processing data  
19 from a plurality of callers in combination to isolate a  
20 select subset of said callers by interrelated process-  
21 ing including a display structure for visually display-  
22 ing data regarding said select subset.

1 20. A system according to claim 19 further  
2 including a printer.

09364734-073099

1 21. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:

9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 a sequencer for developing sequence data  
19 signals as identification data;

20 record means connected to said interface  
21 means for initiating a file and storing identification  
22 data and statistical digital data for specific callers  
23 including data developed by said terminal apparatus;  
24 and

25 analysis means connected to said record means  
26 for processing said statistical data from a plurality  
27 of callers in combination to isolate a select subset of  
28 said callers by interrelated processing.

1 22. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of

09364731-073099

7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:  
9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 a qualification unit for developing qualifi-  
19 cation data signals as identification data;

20 record means connected to said interface  
21 means for initiating a file and storing identification  
22 data and statistical digital data for specific callers  
23 including data developed by said terminal apparatus;  
24 and

25 analysis means connected to said record means  
26 for processing said statistical data from a plurality  
27 of callers in combination to isolate a select subset of  
28 said callers by interrelated processing.

1 23. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:  
9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means

00364734-073099

12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

18 a designation unit for developing designation  
19 data signals as identification data consisting of at  
20 least two data elements;

21 record means connected to said interface  
22 means for initiating a file and storing identification  
23 data and statistical digital data for specific callers  
24 including data developed by said terminal apparatus;  
25 and

26 analysis means connected to said record means  
27 for processing said statistical data from a plurality  
28 of callers in combination to isolate a select subset of  
29 said callers by interrelated processing.

1 24. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:

9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;

14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus

09364734 073099

16 as to provide vocal operating instructions to an  
17 individual caller;  
18 a sequencer for developing sequence data  
19 signals as identification data;  
20 a qualification unit for developing qualifi-  
21 cation data signals as identification data;  
22 a designation unit for developing designation  
23 data signals as identification data;  
24 record means connected to said interface  
25 means for initiating a file and storing identification  
26 data and statistical digital data for specific callers  
27 including data developed by said terminal apparatus;  
28 and  
29 analysis means connected to said record means  
30 for processing said statistical data from a plurality  
31 of callers in combination to isolate a select subset of  
32 said callers by interrelated processing.

1 25. A statistical analysis system for use  
2 with a communication facility including remote terminal  
3 apparatus for individual callers, wherein said remote  
4 terminal apparatus may comprise a conventional tele-  
5 phone instrument including voice communication means  
6 and digital input means in the form of an array of  
7 alphabetic numeric buttons for providing identification  
8 and statistical data, said control system comprising:  
9 interface structure coupled to said commu-  
10 nication facility to interface said terminal apparatus  
11 for voice and digital communication and including means  
12 to provide signal values from signals representative of  
13 data developed by said terminal apparatus;  
14 voice generator means coupled through said  
15 interface means for actuating said terminal apparatus  
16 as to provide vocal operating instructions to an  
17 individual caller;

0364734-07009

26. A statistical analysis system for use with a communication facility including remote terminal apparatus for individual callers, wherein said remote terminal apparatus may comprise a conventional telephone instrument including voice communication means and digital input means in the form of an array of alphabetic numeric buttons for providing identification and statistical data, said control system comprising:

- interface structure coupled to said communication facility to interface said terminal apparatus for voice and digital communication and including means to provide signal values from signals representative of data developed by said terminal apparatus;
- voice generator means coupled through said interface means for actuating said terminal apparatus as to provide vocal operating instructions to an individual caller;
- a designation unit for developing designation data signals as identification data and including an encryptor; and

21           analysis means connected to said record means  
22   for processing said statistical data from a plurality  
23   of callers in combination to isolate a select subset of  
24   said callers by interrelated processing.

1           27. A statistical analysis system for use  
2   with a communication facility including remote terminal  
3   apparatus for individual callers, wherein said remote  
4   terminal apparatus may comprise a conventional tele-  
5   phone instrument including voice communication means  
6   and digital input means in the form of an array of  
7   alphabetic numeric buttons for providing identification  
8   and statistical data, said control system comprising:

9           interface structure coupled to said commu-  
10   nication facility to interface said terminal apparatus  
11   for voice and digital communication and including means  
12   to provide signal values from signals representative of  
13   data developed by said terminal apparatus;

14           voice generator means coupled through said  
15   interface means for actuating said terminal apparatus  
16   as to provide vocal operating instructions to an  
17   individual caller; and

18           analysis means connected for processing data  
19   from a plurality of callers in combination to isolate a  
20   select subset of said callers by interrelated process-  
21   ing including a random number generator for selecting  
22   said subset.

1           28. A process for statistical analysis of  
2   data for use with a communication facility including  
3   remote terminal apparatus for individual callers,  
4   wherein said remote terminal apparatus may comprise a  
5   conventional telephone instrument including voice  
6   communication means and digital input means in the form  
7   of an array of alphabetic numeric buttons for providing

660520-1524550



8 identification and statistical data, said process  
9 including the steps of:  
10 interfacing said communication facility to  
11 provide voice signals and receive digital identifica-  
12 tion and answer signals representative respectively of  
13 identification data and answer data developed by said  
14 terminal apparatus under control of said caller;  
15 generating voice signals and supplying said  
16 voice signals to actuate said terminal apparatus, as to  
17 provide vocal operating instructions to a caller;  
18 providing sequence signals representative of  
19 sequence data indicating the time sequence of a call  
20 with reference to the calls from other callers;  
21 qualifying callers based on said digital  
22 identification signals;  
23 designating callers based on said digital  
24 identification signals;  
25 initiating files and storing data from  
26 qualified callers including, (1) answer data for  
27 specific callers as indicated by said answer signals,  
28 (2) sequence data as indicated by said sequence signals  
29 and (3) identification data as indicated by said  
30 identification signals;  
31 providing external data signals represen-  
32 tative of external data distinct from said answer data  
33 provided from said callers; and  
34 comparing said answer data from said callers  
35 and analyzing said answer data with said external data  
36 in combination to isolate a select subset of said  
37 callers.

09364731-073099

add A2